

## Viewpoint

# Sugarcane Industry in Fiji and its Contributions, Challenges and Solutions: A Survey of Saweni Area in Lautoka

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## Abstract

This research highlights the importance of the sugarcane industry in a developing country like Fiji. this study aims to find out the contributions, challenges and possible solutions of reviving the sugarcane industry with regards to the Saweni Area in Lautoka. Sugarcane has been one of the major industries contributing to Fiji's Gross Domestic Product. The Sugar Industry has undergone continuing and significant changes since its inception. The researcher employed a simple survey technique and collected data through the issuance of questionnaires for the Saweni Area in Lautoka. The findings suggest that sugarcane is still important and will continue to be important in the economic development of the Saweni Area in Fiji. Sugarcane is also one of the foreign exchange-earners and contributes significantly to Fiji's GDP and sustaining the livelihoods of many people. Subsidizing the sugarcane prices, and creating tax-free farming zones can boost confidence and revive this industry on which thousands of Fijians are dependent as their main source of income.

**Keywords:** Sugarcane, Industry, Economic Growth, GDP, Fiji.

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## Introduction

The sugar industry forms the backbone of Fiji's economy. It earns foreign exchange. Sugar's importance to Fiji cannot be exaggerated. Unexpected setbacks in the industry could have disastrous economic consequences for the nation. Many people live in the sugar districts (White, 2003). Towns have developed around the mill and new areas have been opened up by railways, roads, and bridges.

"It provides a livelihood for 21,000 cane farmers and their families. It creates jobs in mills and elsewhere for thousands of people in a developing country striving to boost employment opportunities. It puts more dollars into circulation in Fiji, and it earns between 60-70% of the country's total export income. Without sugar, Fiji would have great difficulty planning for future development improvements in the nation's educational medical and communication services, all vital to its continued prosperity, could suffer" (Manning, 1984, pp.126).

Thus, this study aims to find out the contributions, challenges and possible solutions of reviving the sugarcane industry with regards to the Saweni Area in Lautoka. This research study is also able to address a literature gap identified in Azam and Nandan's (2021, p.7) paper which states:

"It is highly recommended for further studies by employing research instruments such as interviews and survey techniques with relevant participants for a profound understanding of the strategies used by FSC for the Government's continued financial support..."

Thus, this research paper aims to address this gap using surveys through the issuance of questionnaires to better understand the issues in the Sugarcane industry in Fiji.

### *Literature Review and History of Sugarcane Farming in Fiji*

The Sugar Industry has undergone continuing and significant changes since its inception. History shows that the first sugar produced in Fiji was made on the island of Wakaya by Mr David Whippy in 1862. In 1872 Brewer and Joske erected a small experimental sugar mill in Suva, followed by a larger mill 2 years later. In 1899, the CSR (Colonial Sugar Refinery) of Australia decided to erect a sugar mill at Lautoka. The mill commenced operation in 1903 with a crushing rate of 42 tonnes per hour. The Lautoka mill now, 107 years old, is the youngest of the four remaining mills already set up in Fiji. Lautoka mill has played a vital role in the history of the sugar industry and continues to do so as the organization prepares to embrace the challenges of the future. As the mill developed, more the 30 mills were built, but only 4 of them survived. Colonial Sugar Refinery maintained its dominance right up to 1971, but then when the government became the majority shareholder. It became known as Fiji Sugar Corporation (FSC), and the owner and operator of the mill's railway system and research centre (White, 2003).

In 1973, the government launched the Fiji sugar marketing company. After 1970, sugar production began to fall. A plan for its revival was held in 1973 by 2 factors, firstly, there was a peak in the world market price for sugar, and secondly, through the signing of the convention, under which Europe pays Fiji a much higher price than can be obtained

elsewhere (White, 2003). Furthermore, survival and continuity are some of the main objectives of an organisation (FSC) among others (Jaja et al, 2019). Various factors affect an entity's continuity such as meeting market demand and stakeholder needs (Gabriel & Arbolo, 2015).

Furthermore, “when the sugarcane crop matures; it is ready to be harvested. Mature sugarcane plants will be around 10 feet high, losing their leaves and have stalks that are coated with a thick, waxy residue. A tractor or a grader is used to dig a wide trench around the sugarcane field. This trench will serve as a fire breaker. A tractor may make numerous trips around the field with the equipment to create a large enough trench. The size of the trench depends on the size of the sugarcane field that is prepared to be burnt. There must be a large enough fire break to prevent the fire from getting out of control. Then the sugarcane field is set on fire. This serves to burn all the remaining leaves from the sugarcane stalks and get rid of the poisonous snakes and other vermin that could present a hazard to the harvesters” (Watson, 1989, pp.82-83)

People move in rows, so it is easy for them to gather up the sliced cane stalks. The cane stalks are gathered and leaves or tops are chopped off if it still clings onto the stalk. The stalk is free of debris before being placed in the collection bins or cart in the sugarcane field. Then, it is taken to the mill to be crushed, harvesting begins in May or June and extends till December the period when the sugar content in cane stalks is at its highest. The farmer may form groups or gangs or arrange for someone to cut their cane for them. Each group may select a leader. Standing cane is cut at ground level and green leaves or immature tops are discarded. Some farmers prefer to burn cane before harvesting to get rid of the green leaves and immature tops. After harvesting, another crop, the 'Ratoon Crop' grows from the same root system. Cane is also cut by using a machine called the 'Cane Harvester'. It cuts cane within a short period and reduces the farmer's cost. During the crushing season, a steady supply of fresh cane is sent to the mill. Fiji Sugar Corporation (FSC) provides railways and locomotives to transport cane to the mill to be crushed. Farmers also organize their trucks or liaise with FSC to send sugarcane to the mills for crushing. However, there are certain charges levied by FSC for this service.

## **Research Methods**

This research paper used a survey as its research method to collect and analyse data. The questionnaires were developed and given to 20 individuals living in the Saweni Area in Lautoka who are directly dependent on the sugarcane industry for their livelihoods. The survey participants were selected using the snowball sampling technique.

Furthermore, the response rate was 60% which was deemed good for analysis. The approach used to analyse data was a quantitative technique with the use of surveys through questionnaires to collect data. The questionnaires were then individually analysed and a pie-chart was constructed to illustrate the data.

## **Data Analysis and Discussion**

*Is Sugarcane still the backbone of Fiji's Economy?*

According to the pie graph, as illustrated in Figure 1, most of the people have stated in their questionnaire that sugarcane is still the backbone of Fiji's economy (60%) despite the tourism sector playing a lead role and being the major contributor to Fiji's GDP and is the largest foreign exchange earner. The rest have stated that sugarcane is not the backbone of Fiji's economy and tourism now dominates.

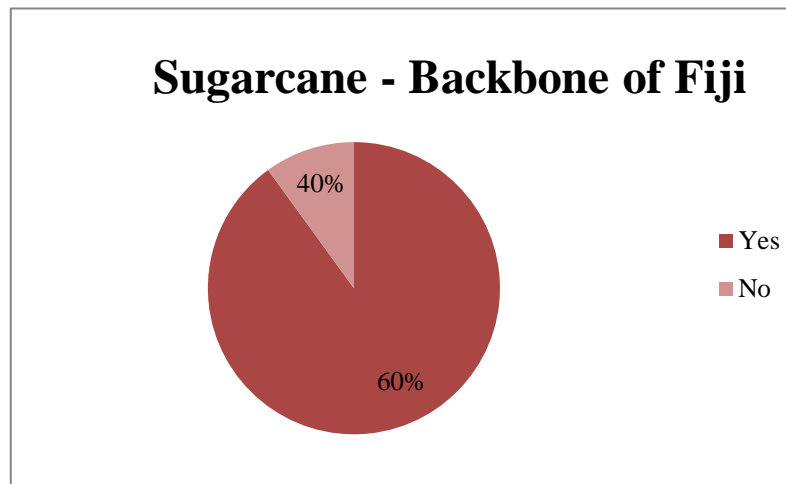


Fig: 1 Sugarcane - Backbone of Fiji's Economy

### *History of the Sugar Industry*

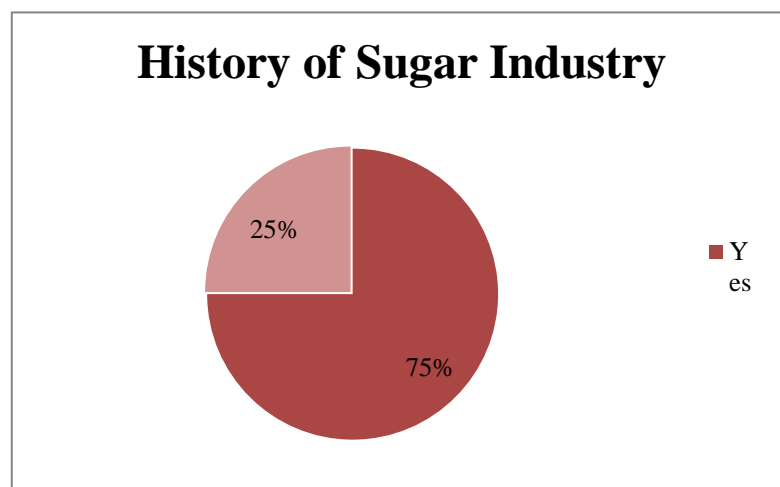


Fig: 2 History of Sugar Industry

According to the pie graph as illustrated in Figure 2 above, 75% of the people know the history of the sugar industry, while the other 25% of people do not know the history of the sugar industry. This shows that despite living in an economy dominated by the agriculture sector, individuals are either not versed or are ignorant of its history.

### *Future Development Plans*

The mill has to introduce a management accounting concept known as the Balanced Score Board (BSB), which would be a new approach to performance measures. It incorporates quantitative, financial and non-financial information on performance

indicators. The balanced scoreboard translates a business mission and strategies into tangibles objectives. It essentially provides an organization with a vivid background of the future and a path of getting there. Future system enhancement is required such as automated reconciliation standard financial reporting. The restructuring of the sugar industry must go ahead through a positive approach and via the consultative process.

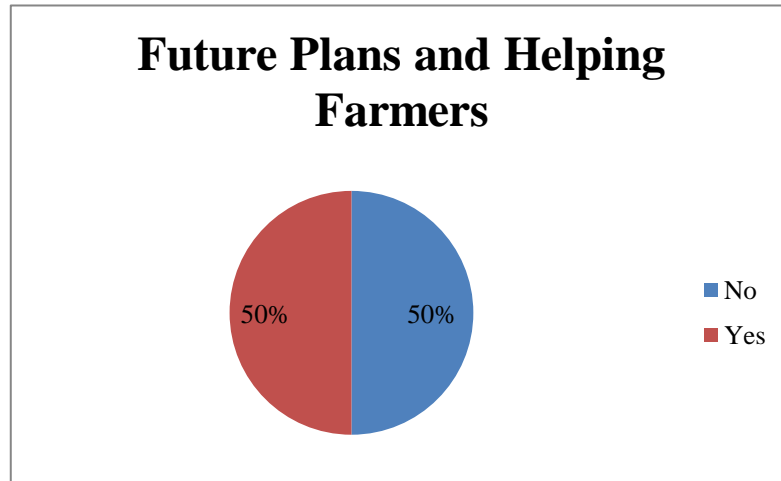


Fig: 3 Future Plans and Helping Farmers

According to the pie graph, as shown above, in Figure 3, 50% of the people have stated that FSC does have a plan and helps farmers, while the other 50% have stated that FSC does not have a plan and they do not help the farmers in Saweni Area.

#### *Economic Contribution to Fiji's Economy*

Sugarcane farming has many contributions to Fiji's economy. It brings in foreign exchange as sugar is exported to other countries. It contributes to Fiji's GDP (Gross Domestic Product) and economic growth. It employs the industry. There are infrastructure developments, as new pieces of equipment are imported and used in the industry. There is the development of towns and cities due to the location of the sugar mill. For example, the location of the largest sugar mill in Fiji is in Lautoka City. There is the development of other related industries such as SPD (South Pacific Distilleries) which depend on (Fiji Sugar Corporation) for molasses to make molasses, mill mud and cane rind boards for revenue. Therefore, sugarcane farming is important in contributing to Fiji's economy.

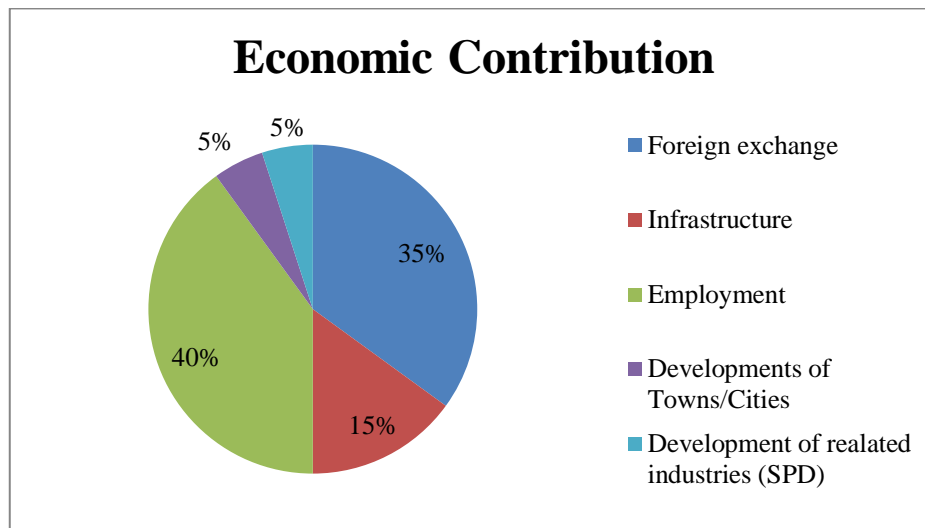


Fig: 4 Economic Contribution to Fiji's Economy.

According to the pie graph above in Figure 4, the people have stated in their questionnaire that economic contributions to Fiji are, foreign exchange (35%), infrastructure (15%), employment (40%), (5%) development of towns and Cities and (5%) development of other related industries.

#### *Methods of Harvesting Sugarcane*

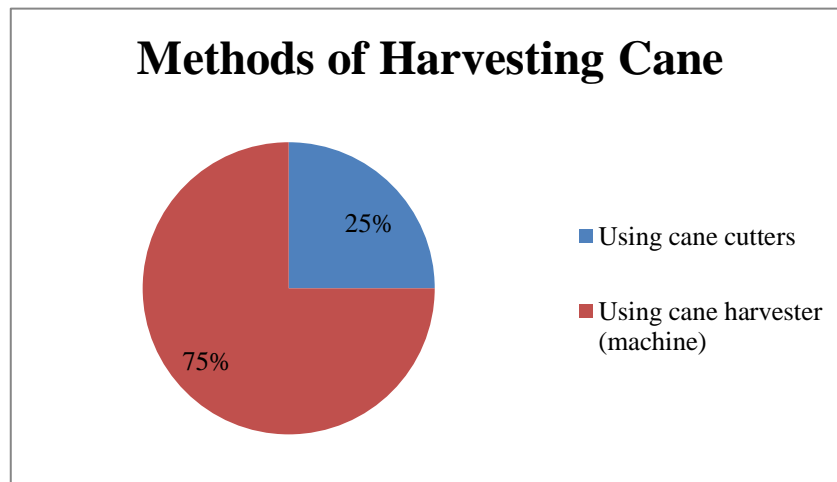


Fig: 5 Methods of Harvesting Cane  
 (Source: Survey data, 2020)

According to the pie graph above in Figure 5, 75% of the people have stated that, when harvesting cane, usually a cane harvester is used to cut cane and it is less time consuming compared to cane cutters. 25% of the people have stated that they use cane cutters to harvest the cane.



### *Pictures of the Sugarcane Industry*



(Source: FSC in Lautoka, 2020)

The above picture shows the FSC mill in Lautoka.



The above picture shows a train transporting cane to the FSC mill in Lautoka.



(Source: Drasa, Lautoka)

The above picture shows the cane harvester cutting cane in Saweni, Lautoka.

### *Problems and Difficulties Faced by Sugarcane Farmers*

Farmers in Fiji face a lot of problems because of the expiry of land leases. If the owners of the land do not want to renew the land lease for the farmer and the farmer is forced to find other sources of income (Narayan & Prasad, 2005; White, 2003). The land is left idle and unused. National disasters such as floods and tropical cyclones cause a lot of damage. The sugar cane plants are severely damaged by the strong winds and take a long time to recover. This cause farmer to be unable to send sugarcane on time and therefore, earn less income on sugarcane. Fire is another problem.

Some of the sugarcane farmers burn the cane farms so it is easier for them to cut cane, however, this reduces the sugar content in the stalks and the farmer receives less money due to the supply of inferior quality sugarcane to the mills. There is a high cost of fertilizers and weedicides and the farmer may face difficulties in buying them. Farmers receive very little money per tonne and often they are not satisfied, therefore, less money on sugarcane is a problem that is faced by all sugarcane farmers in Fiji.



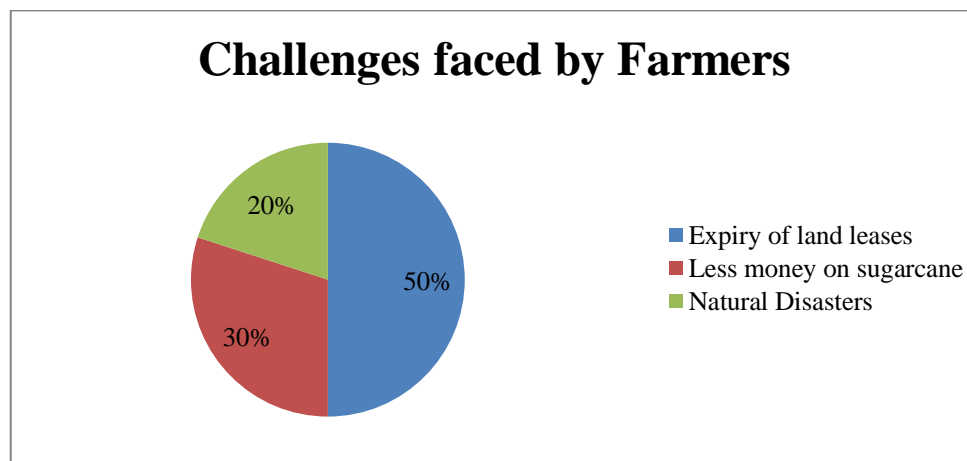


Fig: 6 Difficulties and problems faced by Sugarcane Farmers.  
 (Source: Survey Data, 2020)

According to the graph as illustrated in Figure 6, 50% of people have stated that the difficulties faced by sugarcane farmers are expiry of the land lease while 20% have stated natural disasters and 30% have stated that less money is received from sugarcane.

#### *Role of the Government and its Contribution to the sugar Industry*

The two principal stakeholders, growers and the miller have now taken a much-hardened position regarding how to restructure the industry. The growers are highly organized, to get them to agree to any restructuring proposal seems unlikely unless their interests were well catered for. The government also has a conflicting role as a shareholder which wants a larger share of the revenue and as an arbiter in the dispute. It is proposed that the government stress its role as an arbiter and take a more proactive and leadership role in getting the industry on a business-like and commercial footing. An inclusive decision-making process is necessary for such a vital matter as sugar industry restructuring. Past trends show that policies or restructuring which are made without the endorsement of the stakeholders, do not succeed. For this reason, for any restructuring to succeed, there needs to be a broad consensus on the ingredients of the restructuring.

The government has provided subsidies to the growers, for example, crop rehabilitation programmes. Farm machines (Sugarcane harvesters) were imported from overseas to cut can at least cost for farmers. Fertilizers and weedicides were provided to avoid crop failure.

The government has put up research centres to introduce a better variety of cane. To review and restructure the sugar industry into a commercially viable and efficient industry. Improve milling efficiency and linkage of the payment system to the quality of sugar in cane. Diversify the range and production of sugar and its by-products. Maximize returns to shareholders.

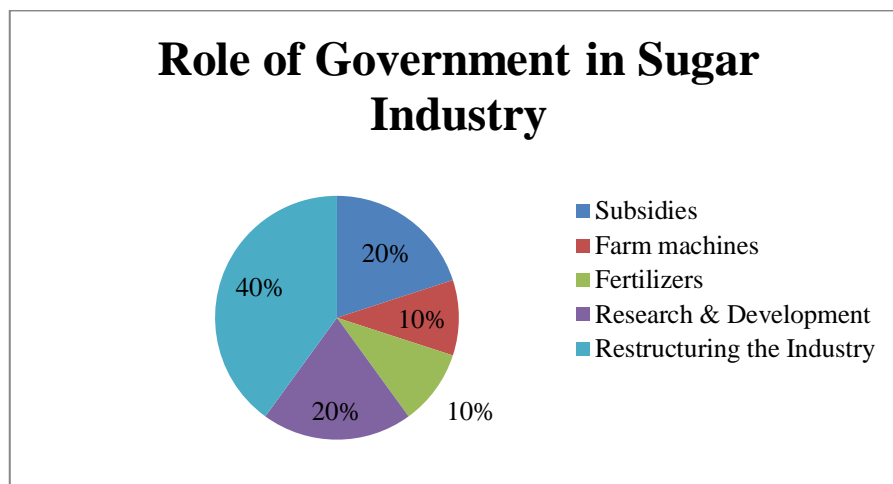


Fig: 7 Government Role and its Contribution to Sugar Industry  
 (Source: Survey Data, 2020)

According to the pie graph illustrated above in Figure 7, people have stated the government's contribution to the farmers and the sugar industry is 20% have stated subsidies, 10% stated farm machines, 10% stated fertilizers to avoid crop failure, 20% stated research and development and lastly, 40% of the people stated restructuring of the industry.

#### *Problems faced by the Sugar Industry*

The sugar industry is currently inundated with numbers. It is at a critical crossroads now. The problems have been highlighted publicly as well as within the industry. Raj and Chand (2017) stated that sugar and textile drove Fiji's economy from the 1970s however, the industry faced heavy competition in the global market. The researchers further highlighted that the sugar industry also suffered from other problems cane quality issues due to burnt cane, labour issues, FSC operational issues such as mill breakdowns, loss of preferential prices and non-renewal of land resulting in sugar price reductions (Raj & Chand, 2017).

Fiji's sugar industry is more like a commercial enterprise, it stands or falls by its ability to supply its market with a product of the quality and price those markets demand. Fiji's sugar industry cannot do those things and is doomed to fall unless it learns to do them. Many including this newspaper have reminded the industry stakeholders of this simple rule of business. Politics has not only stifled the growth of this vital export earner but now threatens to kill it completely. Without radical and rapid reforms, this industry will die. (White, 2003). There are problems on the side of both, the growers and the miller.

On the grower's side, the major problems include declining production and farm productivity, the rising cost of inputs, a serious shortage of farmworkers and cane cutters, an apparent unwillingness to accept best production practice, harvesting and delivery methods, cane weight-based payment system, the supply of a high proportion of burnt and stale cane to the mills (which slows the milling process and produces poor quality sugar), and the expiry of native land leases with consequent demands for large 'goodwill'

payments and high land rentals which further erode the commercial viability of cane cultivation.

For FSC, the problems include low production and productivity (which means a lower level of revenue), inadequate factory capacity, the rising cost of production, high fixed cost, lack of skilled personnel, a deteriorating rail transport system (which is not able to efficiently haul the crop to the mills), declining sugar quality, and poor financial and business management which as seen a lack of investment to maintain factory and rail capacity. The major problem on this account is the possible loss of the preferential European Union market, which was established under the Lome Convention/Sugar Protocol. This loss would see a substantial decline in the gross sugar proceeds flowing into Fiji. Additional domestic problems include a lack of consensus on the proposed restructuring of the industry, poor industrial relations among the various parties in the industry, possible politicization of the sugar industry, and the general state of politics and uncertainty in the country, following the events of 2000. The stakeholders believe that the government will eventually step in to keep it going. This has bred complacency in the industry. During the last two years, the government has provided special financial assistance to the miller (FSC) to facilitate its complacent.

Some of the other problems include expiry of lands lease, expiry of preferential price under the “LOME Sugar Protocol”, “COTONOU” agreement, natural disasters, political instability, breakdown of machines and mills, burnt cane which reduces sugar content and raises the cost, pesticides, weedicides and fertilizers, infertility of the land, in debts, high transportation costs, farmers lack skill in farm management and devaluation of local currency, that is, Fiji dollar (Narayan & Prasad, 2005; White, 2003).

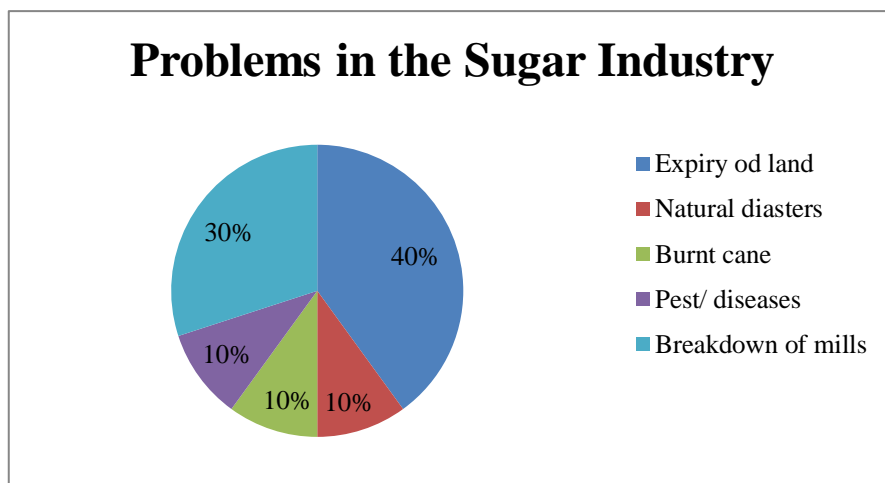


Fig: 8 Problems faced by Sugar Industry  
 (Source: Survey Data, 2020)

According to the pie graph as illustrated in Figure 8, 40% stated expiry of land leases, 30% stated breakdown of mills, 10% stated pest and disease, 10% stated natural disasters and 10% of the people stated burnt cane as the problem faced by the Sugar Industry.

### *Possible Solution to Problems Faced by the Sugar Industry*

The sugar industry faces numerous problems, but, there are many solutions to encounter such problems as highlighted by Raj and Chand (2017) in their paper.

Provision for renewal of land leases will increase the level of productivity as farmers would move to their fields to plant sugarcane. Research and developments would introduce a better variety of sugarcane, that is, high yielding and has more sugar content in stalks.

The government of Fiji has provided farmers with subsidies and crop rehabilitation programmes, restructuring of the industry, fertilizers and weedcides to avoid crop failure, diversifying the range and production of sugar by-products, imported farm machines (Cane harvester) for harvesting cane and implementing strong trade agreements with overseas markets, and improving milling systems to avoid breakdowns.

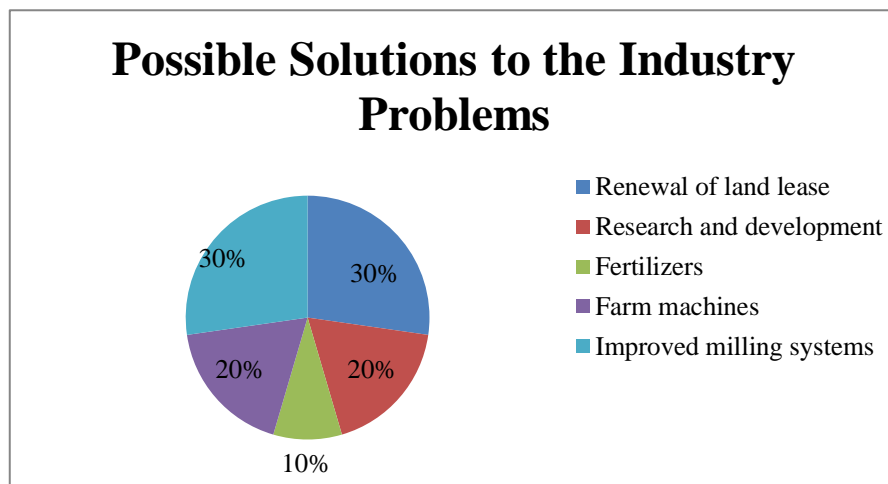


Fig: 9 Possible Solutions to Problems - Sugar Industry  
 (Source: Survey Data, 2020)

According to the pie graph illustrated above in Figure 9, the solutions to the problems faced by the sugar industry are, 30% of the people have stated renewal of land leases in their questionnaire, 20% have stated research and development, 10% have stated fertilizers, 10% have stated farm machines and the last 30% of the systems could prevent rapid breakdowns and solve the problems of the sugar industry in their questionnaire.

### **Conclusion**

The findings suggest that the sugar industry plays a vital role in the economic development of the Saweni Area. In addition to providing better infrastructure such as roads, it also provides direct employment to many people to evacuate poverty (Chambers, 2017).

Furthermore, it was deduced that FSC is a substantial foreign exchange earner, which brings in a lot of economic development. Surprisingly, sugar quality has by large remained satisfactory except when handling large amounts of burnt cane.

Although the milling sector had certainly been running at a loss for some time, it has been swirling on government support, subsidies and grant (Azam & Nandan, 2021).

### *Policy Implications*

Some of the policies that can be directed are; FSC and sugar production should be extensively budgeted for by the government to get the industry back on its feet. The mills should undergo major infrastructure overhauls to increase productivity. The mill employees' list of benefits should be reviewed to increase efficiency. The government should review its strategies and implement a land usage law that promotes sugar cane farming and production on idle lands. This should also promptly solve the land issue problems. Independent or foreign auditors should be allowed to audit the FSC financial records to show transparency and at the same time take to task corrupt individuals in decision making positions.

Subsidize farmers' loans and sugarcane prices, and create tax-free framing zones so that confidence is restored in this industry. There is also a possibility of diversification in other profitable agricultural sectors such as yaqona, ginger and cash crop and export-oriented products including value-adding.

### *Scope of Research, Limitations and Further Study*

This research has focused on the contributions, challenges and some of the possible solutions to revive this industry in Saweni Area in Lautoka. The study only focuses on this area and finding may deviate from other sugarcane belt areas of Fiji and study conducted for Fiji as a whole. This research scope can be further extended to other areas where sugarcane farming is prevalent.

### **References**

- Azam, M. R. & Nandan, R. K. (2021). Fiji Sugar Corporation: A Legitimacy Theory Perspective. *Asian Journal of Accounting and Governance*, 15(1), pp.1-9.
- Chambers, J. (2017). Sugar Industry Critical to the Economy: A-G. Retrieved from <https://fijisun.com.fj/2017/06/08/sugar-industry-critical-to-the-economy-a-g/>
- Gabriel, J. M. O., & Arbolo, K.G. (2015). Entrepreneurial orientation and survivability of banks in Nigeria: The mediating role of human capital management. *The European Business and Management Conference 2015 Official Conference Proceedings*.
- Jaja, S. A., Gabriel, J. M. O., & Wobodo. C.C. (2019). Organizational Isomorphism: The Quest for Survival. *Nobel International Journal of Business and Management Research* 3(5): 86-94.
- Manning, G. (1984). *Selling Today*, Brown Publishers, Iowa.
- Narayan, P. K., & Prasad, B. C. (2005). Economic Importance of the Sugar Industry for Fiji. *Review of Urban & Regional Development Studies* 17(2): 104-114.

Raj, S. K. & Chand, P. (2017). Analysis of Fiji's Exports and its Impact on Economic Growth, *International Journal of Business and Social Research*, 7 (4), 1-14.

Watson, S. (1989). *Tropical Agriculture*, Collin Publishers, Auckland.

White, M. M. (2003). The financial viability of the Fiji sugar corporation: an assessment from the corporation's annual financial reports. *Fijian Studies: A Journal of Contemporary Fiji* 1(2): 287-300.

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